# CITY OF DOVER S P E C I F I C A T I O N S for

# **B14035 REFLECTORIZED PAVEMENT LINES**

February, 2014

Prepared by:
COMMUNITY SERVICES DEPARTMENT
ENGINEERING DIVISION
288 CENTRAL AVENUE
DOVER, NEW HAMPSHIRE 03820

(603) 516-6450

# **NOTICE TO BIDDERS**

The City of Dover is requesting bids for pavement line painting throughout the City.

This project shall have a Targeted completion date of May 23, 2014 as weather permits, to accommodate the installation of pavement markings. Total contract completion date shall be December 31, 2014 to accommodate Section 00400, Paragraph A.3 "Scheduling", of these Specifications.

Traffic control is required at all times and must be provided by bidder.

# **INVITATION TO BID**

The City of Dover, New Hampshire, will accept sealed bids for pavement marking in the City of Dover. Bids must be submitted in a sealed envelope plainly marked:

#### "Sealed Bid, B14035 REFLECTORIZED PAVEMENT LINES"

City of Dover, Purchasing Office Municipal Building 288 Central Ave Dover, NH 03820

All bids must be received as outlined in cover page of Request for bid. No late bids and no telephone bids will be accepted. All bids must be made on the bid forms supplied, and the bid forms must be fully completed when submitted. A 10% Bid Bond, 100% Payment Bond and 100% Performance Bond will be required.

### Federal wage rates DO NOT apply to this contract.

The contract documents may also be examined at the following locations:

City of Dover Purchasing Office, Municipal Building, Dover, NH City of Dover Engineering Office, 271 Mast Rd., Dover, NH F. W. Dodge Plan Room, 835 Hanover St., Suite 103, Manchester, NH Construction Seminar, 734 Chestnut St., Manchester, NH

The City of Dover reserves the right to accept any bid, and to reject any or all bids. The City reserves the right to award the bid to other than the low bidder if bid deemed most advantageous to the City. The City reserves the right to accept the bid on one or more items of a proposal, on all items of a proposal or any combination of items. The City reserves the right to waive defects and informalities of bids.

Ann M. Legere, CPPB Purchasing Agent a.legere@dover.nh.gov

# **BID FORM**

Proposal of					
hereinafter called "BIDDER", o	organized and exist	ting u	ander the laws of th	e state	e of
doing business as					
(insert "a corporation", "a partne	ership", or "an indi	vidu	al" as applicable)		
to the City of Dover, New Han	<b>npshire</b> , hereinafte	er cal	led "OWNER".		
In compliance with your Advert for the <b>REFLECTORIZED PA</b> CONTRACT DOCUMENTS, v	AVEMENT LINE	S pr	oject in strict accord	dance	with the
By submission of this BID, each without consultation, communic other BIDDER or with any com	cation, or agreemen				-
BIDDER hereby agrees to comr specified in the <b>NOTICE TO F</b> specified.					
BIDDER acknowledges receipt	of the following A	DDF	ENDUM (if applica	ble):	
BIDDER agrees to perform all t following unit price:	the work described	in th	e CONTRACT DO	CUM	MENTS for the
ITEM	QUANTITY		UNIT PRICE		TOTAL PRICE
4" Wide Pavement Lines	990,000 LF	X	\$=	=	\$
Paint product to be used					
TOTAL REFLECTORIZED	PAVEMENT PA	INT	MARKING BID:		
\$	(U.S. DO	LLA	RS)		
	(3.2. 2 0	<b>_</b>	,		
	(writ	ten)			

**NOTE:** It is understood that the various unit prices bid will control in any contract which may be awarded arising from this Proposal; that the estimated quantities above are approximate only and used only for the comparison of bids; and are subject to increase or decrease as required to properly complete the Contract Work. It is further understood that any portion, or the entire amount, of any bid item(s) may be deleted in order to meet the allocated budget dollar amount. If any quantity in the BID is increased or decreased by **25%** of the amount in the BID SCHEDULE, or any item(s) or work is extended or increased by **25%** of the amount in the BID SCHEDULE, the OWNER retains the right to renegotiate the unit price of said item(s).

Bid Submitted by:	
Company Name	_
Signature of Authorized Representative	e
Title	_
Address	_
City/Town State Zip	<del>_</del> )
Telephone Number	_
BIDDER hereby acknowledges by subspecifications and will perform the con-	mission of bid that he/she has examined the site and applete job for the amounts indicated.
(SEAL - if BID by a corporation)	Attest:
Authorized Signature	
Name (Please Print)	
Title	
Date	

# **GENERAL CONDITIONS**

#### **SECTION 00300**

#### A. GENERAL DESCRIPTION OF WORK

This project involves installation of reflectorized paint lines at various locations throughout the City. The type of markings required under this contract will include work which is normally placed by use of a truck mounted system. The work shall consist of but not limited to installation of centerline and edgeline markings, and shall also include all single broken lines, lane lines, turn lane tapers, etc.

#### **B. SCHEDULES**

1. The CONTRACTOR shall submit to the OWNER (through the ENGINEER) a progress schedule for prosecution of the WORK. The CONTRACTOR shall continually update said schedule on a weekly basis. The CONTRACTOR shall be required to schedule work in a manner that will minimize impact to traffic. For the purpose of this contract, the normal working hours shall be **9pm to 6am, during the nighttime hours**. **Prior to start of work, a preconstruction meeting will be required.** (See Paragraph "C" of this section.)

#### 2. Scheduling

Pavement marking shall be completed in the following sequences:

- a. Initial application shall include all markings described in the contract specifications with a targeted completion date of **May 23, 2014**.
- b. The Contractor shall be available to respond for making services in conjunction with the Community Services Department resurfacing program, which normally occurs after the Labor Day holiday weekend.
- 3. Contractor shall be available to respond to all requests for pavement marking, other than emergency requests, within 14 calendar days. This work shall be in conjunction with but not limited to the Community Services Department resurfacing program and utility projects.

#### 4. Emergency marking requests

Contractor shall be available to respond to emergency marking services within seven (7) calendar days of notification. This shall be only when lack of pavement markings presents a potentially dangerous or confusing environment for motorists.

#### C. PROJECT MEETINGS

#### 1. Pre-Construction Conference

The CONTRACTOR shall not commence work until a conference has been held at which representatives of the CONTRACTOR, ENGINEER, and OWNER are present. The meeting shall be scheduled on a normal workday between the hours of 8:00am and 4:00pm.

The CONTRACTOR will be required to have a designated supervisor attend this meeting. This person shall be responsible for noting all work to be performed.

The intent of this meeting is to allow the Contractor, Engineer, and Owner the opportunity to preview the work during the daylight hours.

The Contractor shall note that the <u>Owner may not have available any employees</u> to direct the Contractor or his representative to the work areas during the nighttime work hours.

# 2. During Construction

The Contractor's Supervisor shall be available to meet with the Engineer at 6:00am, <u>after each</u> <u>night's work</u>. This meeting will be to review the previous night's work and any work to be installed during the next scheduled work night. The City will not be responsible for any additional costs incurred by CONTRACTOR for having to return to complete or correct any work.

All questions or problems that may arise after construction has begun shall be directed to the City Engineer's Office, 603-516-6450 between the hours of 8am and 4pm Monday through Friday.

#### D. INSPECTION

- 1. All materials and equipment used in the application of pavement markings shall be subject to adequate testing and inspection in accordance with this contract and accepted standards.
- 2. The CONTRACTOR shall furnish and have available for the Engineer's use the following inspection equipment:
  - a. wet film thickness gauge scale shall range from 2 mils to at least 30 mils, in 2-mil increments.
  - b. pocket microscope shall have a four-part lens system having magnification of 20x, with a clip-on accessory light.
  - c. striping calibration kit volumetric bead calibration kit, complete with instructions, as manufactured by Potters Industries, Inc., or approved equal.

- 3. Inspections, tests or approvals by the ENGINEER or others shall not relieve the CONTRACTOR from his obligations to perform the WORK and insure its final suitability.
- 4. The Contractor shall make the work area accessible to the Owner or his Representative at all times.
- 5. The Contractor shall be responsible to have a qualified supervisor present on the project at all times. The Supervisor shall be designated as the Contractor's Representative on the project and shall have full authority to act on behalf of the Contractor. Supervisor shall be required to perform supervision of other employees and to coordinate the work.

#### E. CONTRACT SECURITY

The Contractor shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the contract price, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents. Such bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the State of New Hampshire.

#### F. INSURANCE

- a. The Vendor shall secure and maintain for the duration of this project a General Liability Insurance policy or policies at no cost to the City of Dover. The coverage of said insurance policy shall be in an amount of not less than Two Million Dollars (\$2,000,000) per occurrence. An insurance certificate shall be supplied to the City of Dover by the Vendor. The City of Dover shall be named as an additional insured on the policy. A condition of the insurance coverage shall be thirty (30) days notice to the City of Dover upon cancellation of the policy. The Vendor shall also provide the City of Dover certificates of renewal for any applicable insurance policy no later than ten (10) business days prior to the expiration of said policy.
- b. The Vendor shall secure and maintain for the duration of this project Automobile Liability Insurance covering the operation of all motor vehicles, including those hired and borrowed, used by the Vendor in connection with this project at no cost to the City of Dover. The coverage of said insurance policy shall be in the amount of not less than Five Hundred Thousand Dollars (\$500,000) for all damages arising out of bodily injuries to or death of one person and subject to that limit for each person, a total limit of at least One Million Dollars (\$1,000,000) for all damages arising out of bodily injuries to or death of two or more persons in any one accident or occurrence. An insurance certificate shall be supplied to the City of Dover by the Vendor. The Vendor shall also provide the City of Dover certificates of renewal for any applicable insurance policy no later than ten (10) business days prior to the expiration of said policy.

c. By signing an Agreement, the Vendor agrees, certifies, and warrants that the Vendor is in compliance with, or exempt from, the requirements of New Hampshire RSA Chapter 281-A, regarding workers' compensation insurance. The Vendor shall maintain statutory workers' compensation insurance coverage for all of its employees as required by said law.

# REFLECTIVE PAINT PAVEMENT MARKINGS

#### **SECTION 00400**

#### A. GENERAL REQUIREMENTS

### 1. <u>Description</u>

Work shall consist of installing longitudinal paint pavement markings to delineate traffic lanes. Markings shall be white and yellow reflectorized paint lines 4 inches in width. Installation shall be done in accordance with the standards of the 2009 edition of MUTCD, and NHDOT Standards and Specifications (specifically sections 632 and 708) dated 2010.

#### 2. Materials

- a. Glass beads for reflectivity shall conform to AASHTO M 247 and shall be Type 1 with a moisture resistant coating.
- b. Paint shall conform to NHDOT specifications:

1. White: 708-NH 4.11

- 2. Yellow: 708-NH 4.12
- 3. This will be a ready-mix 100% acrylic type, low VOC, fast drying, white or yellow waterborne traffic pain that shall be used as a base for reflective beads, or for use as a plain non-reflective paint. The paint shall be suitable for either bituminous or concrete surfaces
  - c. Any substitutions of materials defined in this contract must be requested in writing to the Engineer for approval. If the Engineer deems substitutions to be of equal substance and function to that specified, the Engineer may approve its use by Contractor. The Engineer shall notify Contractor in writing.

#### 3. Scheduling

- a. Contractor shall complete initial striping applications prior to May 23, 2014 or as weather permits.
- b. Contractor shall be available to respond to all requests for pavement marking, other than emergency requests, **within 14 calendar days**. This work shall be in conjunction with but not limited to the Community Services Department resurfacing program and utility projects.

#### c. Emergency marking requests:

Contractor shall be available to respond to emergency marking services within seven (7) calendar days of notification. This shall be only when lack of pavement markings presents a potentially dangerous or confusing environment for motorists.

#### **B. CONSTRUCTION**

- 1. All line markings shall be reproduced in-kind unless otherwise noted by this Contract or as directed by the ENGINEER. All pavement markings shall be in accordance with the standards set by the 2009 edition of the MUTCD, and NHDOT Standards and Specifications dated 2010. All markings shall be placed at locations specified by this Contract or as ordered by the ENGINEER.
- 2. Longitudinal lines placed on roadway tangent segments shall be straight and true. Longitudinal lines placed on curves shall be continuous and smoothly curved lines consistent with roadway alignment. All pavement markings placed which do not meet tolerance limits as required by these specifications, or do not reproduce existing lines, shall be removed and replaced at the Contractor's expense.
- 3. Newly applied pavement markings shall be protected from traffic until the paint has cured. The method of protection shall not constitute a hazard to the traveling public. Damage to any markings as a result of tracking shall be repaired by the CONTRACTOR at his expense by a method approved by the ENGINEER.
- 4. As a minimum, when striping two-way roadways, an escort vehicle shall both precede and follow the pavement marking truck. On one-way divided roadways, at least two (2) escort vehicles shall follow the truck. Additional escort vehicles may be required on multi-lane roadways, or as required by the ENGINEER.

# C. REFLECTORIZED PAINT PAVEMENT MARKINGS

- 1. All equipment used for highway striping shall be specifically designed and manufactured for that purpose by a company experienced in the design and manufacture of such equipment. Equipment used for longitudinal lines shall be mounted on a truck having a minimum gross vehicle weight of 14,000 pounds with a minimum paint tank capacity of 60 gallons, and shall have the capability of placing double lines up to four inches in width or single lines up to twelve inches in width in one pass. The paint shall be applied with an atomizing spray-type striping machine equipped with an automatic paint stripe controller having skip-line capability to place broken lines. The equipment shall include a mechanical glass bead dispenser mounted not more than twelve inches behind the paint dispenser. All equipment shall be kept in good operating condition.
- 2. The Contractor shall furnish and have available for the ENGINEER'S use the following inspection equipment:
  - a. Wet Film Thickness Gauge Scale shall range from 2 mils to at least 30 mils in 2 mil increments.
  - b. Pocket Microscope Shall have a four-part lens system having magnification of 20x, with a clip-on accessory light.
  - c. Striping Calibration Kit Volumetric bead calibration kit, complete with instructions, as manufactured by Potters Industries, Inc., or an approved equal.

- 3. Immediately before applying the pavement marking paint to the pavement, the Contractor shall insure the surface is dry and entirely free from dirt, sand, grease, oil, or other foreign matter.
- 4. The surface temperature of the pavement shall be a minimum of 50 degrees Fahrenheit.
- 5. Paint shall be applied at the following rates for the widths of line specified:

	Solid Line	Broken Line
Line Width	Linear Feet	Linear Feet
(inches)	per gallon of paint	per gallon of paint
4	300-350	1200-1400
6	200-230	800-920
8	150-175	
12	100-120	

**NOTE:** Application rates for widths not shown shall be in direct proportion to those specified above.

- 6. Glass beads shall be evenly applied through the entire paint thickness at a rate of 6 pounds to each gallon of paint. Glass beads shall be applied by pressurized methods for fast-dry paint and by pressurized or mechanical drop methods for regular-dry paint.
- 7. All clean up and disposal of solvents, residue, and the like shall be the responsibility of the Contractor and shall be performed in accordance with all applicable federal, state and local regulations.

#### D. MEASUREMENT

- 1. Longitudinal reflectorized pavement markings will be measured by the linear foot along the surface of markings, to the nearest foot of actual length of marking applied, for the type and width specified.
- 2. Double lines and combination solid/broken lines will not be measured together, but will be measured as separate lines according to the actual length of each individual marking applied.

# E. PAYMENT

- 1. Longitudinal reflectorized pavement markings of the type specified will be paid for at the contract unit price per linear foot complete in place.
- 2. No payment will be made for those units of pavement markings that do not conform to the requirements of this section, or work that is required to be removed and or reconstructed due to errors or omissions by the contractor.

# TRAFFIC CONTROL AND CONSTRUCTION SIGNS

#### SECTION 00500

#### A. GENERAL

- 1. The Work under this Section shall consist of providing and maintaining safe and passable traffic accommodations for the public. This shall be done by furnishing, erecting, and maintaining construction signs, barricades, lights or other warning devices as required.
- 2. All work is to be done in accordance with the provisions of the "Manual On Uniform Traffic Control Devices" 2009 edition, and the NHDOT Standards and Specifications dated 2010, Sections 618 and 619, and the State of New Hampshire Traffic Control Handbook.
- 3. A traffic control plan shall be submitted to the Engineer for approval prior to start of work.
- 4. Control devices used shall meet the requirements for nighttime use set by the MUTCD. All cones, barrels, barricades, etc., must have appropriate reflective devices.
- 5. Construction signs shall be placed at each approach of the work to adequately warn traffic. If flaggers are used, additional warning signs shall be placed.
- 6. If acceptable traffic control is not maintained, as determined by the Engineer, the Contractor may be required to suspend work that interferes with traffic as directed.
- 7. When conditions require, maintenance of traffic shall be accomplished by the use of flaggers or uniformed officers whenever construction restricts heavy flows of traffic in frequently traveled roads, or traffic is required to be directed around the work area.
- 8. Proper maintenance of traffic shall be the Contractor's responsibility. Contractor shall provide all signs, channelizing devices, flaggers, etc., as required to provide safe travel for the public.

# **B. EQUIPMENT and PERSONAL PROTECTION**

- 1. All personnel working on the project shall be required to wear safety vests, eye, ear, breathing, etc., protection as required by all local, State and Federal agencies.
- 2. Unless otherwise permitted, all vehicles used on the project for the purpose of traffic protection, shall be equipped with an amber flashing light visible from all directions. The flashing amber light shall be maintained in continuous operation while vehicle is in or near any part of the roadway.

#### C. MEASUREMENT and PAYMENT

No separate measurement or payment shall be made for the work described in this section. This work shall be considered subsidiary to all items of the contract.

# **BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,
as Principal, and
as Surety, are hereby held and firmly bound unto the CITY OF DOVER, NEW HAMPSHIRE, hereinafter called <b>OWNER</b> , in the penal sum of U.S. Dollars,
(\$) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.
Signed, this day of, 2014.
The Condition of the above obligation is such that whereas the Principal has submitted to CITY OF DOVER, NEW HAMPSHIRE, a certain BID attached hereto and hereby made a part hereof to enter into a contract in writing for the Reflectorized Pavement Marking Project.
NOW, THEREFORE,
<ul> <li>a) If said BID shall be rejected, or</li> <li>b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID,</li> </ul>
then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event, exceed the penal amount of this obligation as herein stated.
The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.
IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hand and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.
Principal: Surety: By:

# PAYMENT BOND

doing business as				
(a corporation, partnership, in	ndividual),			
Hereinafter called <b>Principal</b> , a	nd			
hereinafter called <b>Surety</b> , are hereinafter called OWNER, in	•			
(\$	) in law made, we bind ou	ful money of the	United States,	for the payment of
THE CONDITION OF THIS Contract with the OWNER, dat which is hereto attached and m Project.	ed the	day of		2014, a copy of
NOW. THEREFORE, if the Pr	incipal shall promi	ntly make navme	nt to all person	s. firms

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in an way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

which shall be deemed an original, this the _	I ,	
(SEAL) ATTEST:	(SEAL) ATTEST:	
(Signature)	(Signature)	_
NAME:	NAME:	
TITLE:	TITLE:	

**NOTE:** Date of BOND must not be prior to date of Contract. If CONTRACTOR is a Partnership, all partners should execute BOND.

**IMPORTANT:** Surety companies executing BONDS must be authorized to transact business in New Hampshire.

# PERFORMANCE BOND

MICHALL MENDIA MILEGE DDEGENIMO AL A

KNOW ALL MEN BY THESE PRESENTS: that			
a (corporation, partnership, individual), hereinafter called Principal, and			
hereinafter called Surety,			
are held and firmly bound unto the CITY OF DOVER, OWNER, in the penal sum of) in law	U.S. Dollars,		
payment of which sum well and truly to be made, we bi and severally, firmly by these presents.			
THE CONDITION OF THIS OBLIGATION is such the certain contract with the OWNER, dated the d is hereto attached and made a part hereof for the construPAVEMENT LINE project.	lay of, 2014, a copy of which		

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guarantee period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is which shall be deemed an original, and this the	<b>_</b>
(SEAL) ATTEST:	(SEAL) ATTEST:
(Signature)	(Signature)
NAME:	NAME:
TITLE:	TITLE:

**NOTE:** Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND.

**IMPORTANT:** Surety companies executing BONDS must be authorized to transact business in New Hampshire.